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[KR/KR]; 910-208 Jukong Apartment, Kojan 2-dong,  
Ansan-si, Kyungki-do 425-726 (KR).

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(74) Agent: **KIM, Kook Nam**; 2nd Fl. Shindo Building,  
823-10, Yeoksam-dong, Kangnam-ku, Seoul 135-080  
(KR).

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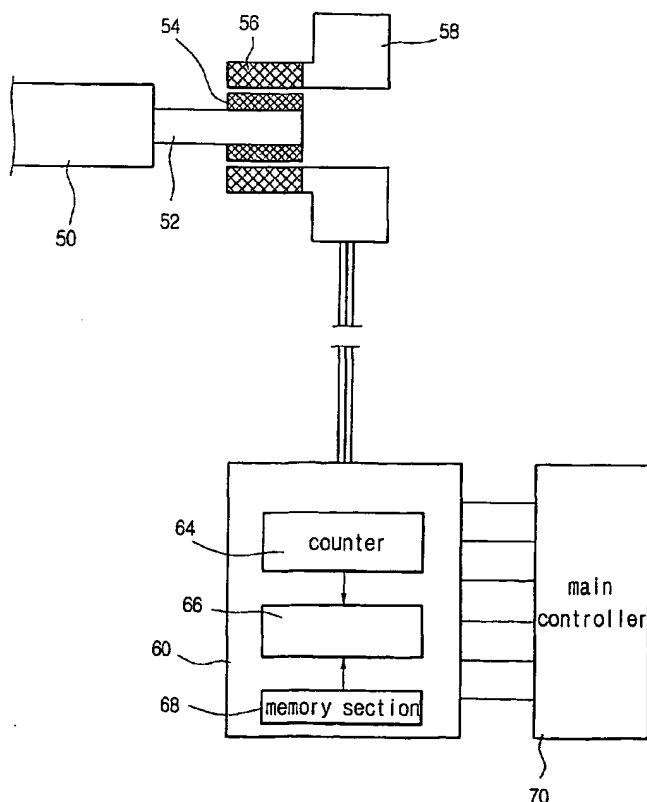
(71) Applicant (for all designated States except US): **YIWON  
ENGINEERING INC.** [KR/KR]; 2 Na 201, Sihwag-  
ongdan, 1260 Jungwang-dong, Siheung-si, Kyungki-do  
429-450 (KR).

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(54) Title: APPARATUS FOR DETECTING POSITION OF DRAWBAR IN AUTOMATIC TOOL CHANGE DEVICE



(57) Abstract: Disclosed is an apparatus for de-  
tecting a position of a drawbar unit installed in a  
spindle unit. The apparatus is a part of an auto-  
matic tool exchange device for exchanging tools in  
the spindle unit of a machine tool. The apparatus  
transmits a signal to a main controller after detect-  
ing the position of the drawbar such that the main  
controller checks a state of a tool clamped by the  
drawbar unit. The drawbar unit is installed in the  
spindle unit forming the automatic tool exchange  
device and clamps the tool at a front thereof. A  
core is installed at a rear peripheral portion of the  
drawbar unit and a coil section having a cylindrical  
shape is wound around an outer peripheral portion  
of the core. An LC oscillating circuit is provided  
such that the LC oscillating circuit includes the coil  
section as a part thereof. An oscillating frequency  
of the LC oscillating circuit varies depending on  
a position of the core made of magnetic material,  
so the apparatus detects the position of the draw-  
bar unit based on the oscillating frequency of the  
LC oscillating circuit. A position detecting section  
transmits present position information of the draw-  
bar unit to a main controller, so the main controller  
detects the present position of the drawbar unit.



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